

### III. TRENDS IN FSP PARTICIPATION SPELLS

Analysis of changes in participation spell length can be used to examine changes in the exit rate. All else being equal, a higher exit rate means that individuals are staying in the FSP for shorter periods of time. Using both FSPQC and SIPP data, we have examined the length of FSP participation spells for different time periods of the 1990s.

Our analysis examined spell length distributions for two different types of FSP cohorts. An “entry cohort” consists of all individuals who enter the FSP over a given period of time. Analysis of entry cohorts can be used to answer questions such as: For all people who entered the FSP between 1996 and 1999, what was the typical participation spell length? By definition, this analysis ignores individuals who entered the FSP prior to the analysis period.

A “cross-sectional cohort” consists of all individuals participating in the FSP in one month. Analysis of cross-sectional cohorts can be used to answer questions such as: For all people participating in March 1996, what was the typical participation spell length?

In general, we would expect the typical spell length to be longer when measured for the cross-sectional cohort, because cross-sectional cohorts capture the cumulative effect on the caseload of long-term spells. In a given month, the FSP consists not only of those short-term spells (lasting only several months) that started within the last several months but also includes all long-term spells that started within the last several years. Thus, even if a small proportion of new entrants stay on the program for a long period of time, the cumulative effect of those cases means that in any given month a much larger share of the caseload is in the middle of a long participation spell.

## **A. ENTRY COHORT ANALYSIS**

### **1. FSPQC-Based Estimates**

We used life tables to examine the length of time individuals participate in the FSP. The life table (Table 13) presents the hazard rate, survivor rate, and cumulative exit rate for each spell. The hazard rate is the probability that a spell ends in a particular month, given that it has lasted at least until the beginning of that month. The survivor rate is the unconditional probability that a spell lasts more than a given number of months. The cumulative exit rate is the unconditional probability that a spell ends within a given number of months

To construct life tables using FSPQC data, we used repeated cross-sectional analysis on a series of entry cohorts over the analysis period. For each month  $t$  in the analysis period, we calculated the number of new entrants in that month. Then, in each month  $t+1$  to  $t+n$ , we estimated the number of individuals whose FSPQC record indicated that they entered in month  $t$ . Since the monthly samples are intended to be representative, decreases in the estimated number of cases with an entry month of  $t$  are assumed to reflect the number of cases that exited. The life table for the entry cohort is the sum of the exit patterns for all of the entry months of the analysis period.

We used FSPQC files for 1990 through 2002. As a result, we do not have estimates of the number of cases that began during that period but ended after 2002. These “right-censored” cases are not considered to be exits from the FSP.

The FSPQC entry cohort estimates include the weighting adjustment to account for the undersample of individuals in their first two months of participation, which we describe in

Section B of Chapter II. Our estimates do not, however, adjust for fact that the FSPQC data contain an oversample of individuals in their 11<sup>th</sup> month of FSP receipt.<sup>16</sup>

Table 13 presents the participation spell life table based on FSPQC data. In FSPQC data, 50 percent of new FSP entrants during the 1990s exited by the end of their sixth month. Three-fourths of new entrants exited by the end of their 13<sup>th</sup> month, and less than 30 percent of new entrants had a participation spell that lasted longer than one year. Only 11.9 percent of new entrants had participation spells lasting longer than two years.

The pattern of the hazard rate across participation spells appears to reflect the influence of certification periods on FSP exits. Certification periods—the amount of time a household can receive FSP benefits before having to go through a recertification process—tend to be 3, 6, or 12 months (depending on household characteristics and state guidelines). The hazard rate was highest for participation spells that are equal to or slightly longer than 3, 6, or 12 months, which suggests that recertification is an influential trigger event for FSP exit.

FSPQC data indicate that the length of participation spells declined somewhat over the 1990s (Table 14). During the period of caseload growth in the early 1990s, the median participation spell was seven months. This fell to six months during the period of caseload decline in the late 1990s. Similarly, while 75 percent of new entrants left the program by the end of their 13<sup>th</sup> month in the early 1990s, 75 percent exited by the end of their 12<sup>th</sup> month in the late 1990s.

---

<sup>16</sup> The number of individuals in their 11<sup>th</sup> month of participation often is substantially higher than the number in their 10<sup>th</sup> month during the previous calendar month. The reason for this oversample is unknown. This phenomenon has changed over time. During the 1990-1993 period, the number of individuals in their 11<sup>th</sup> month was, on average, 21.5 percent greater than the number in their 10<sup>th</sup>. The number of 11<sup>th</sup> month cases was only 7.1 percent higher in the 1993-1996 period, and was 11.2 percent higher in the 1996-1999 period.

TABLE 13

LIFE TABLE OF FSP PARTICIPATION SPELLS ENTRY COHORT  
FSPQC-BASED ESTIMATES 1990-1999

Month of Spell	Number of Spells at Beginning of Month	Number Exiting During Following Month	Survivor Rate (Percentage)	Hazard Rate (Percentage)	Cumulative Exit Rate (Percentage)
1	193,637,953	15,684,674	91.9	8.1	8.1
2	177,953,279	13,880,356	84.7	7.8	15.3
3	164,072,923	19,796,540	74.5	12.1	25.5
4	144,276,384	18,507,197	65.0	12.8	35.0
5	125,769,186	9,860,313	59.9	7.8	40.1
6	115,908,874	20,608,250	49.2	17.8	50.8
7	95,300,624	16,659,094	40.6	17.5	59.4
8	78,641,530	8,928,103	36.0	11.4	64.0
9	69,713,427	1,982,446	35.0	2.8	65.0
10	67,730,981	-3,388,405	36.7	-5.0	63.3
11	71,119,385	9,529,086	31.8	13.4	68.2
12	61,590,300	9,673,763	26.8	15.7	73.2
13	51,916,537	10,344,317	21.5	19.9	78.5
14	41,572,220	5,734,125	18.5	13.8	81.5
15	35,838,095	1,224,719	17.9	3.4	82.1
16	34,613,376	2,977,526	16.3	8.6	83.7
17	31,635,849	1,569,177	15.5	5.0	84.5
18	30,066,673	730,918	15.1	2.4	84.9
19	29,335,755	1,696,138	14.3	5.8	85.7
20	27,639,617	-4,508,520	16.6	-16.3	83.4
21	32,148,137	4,624,057	14.2	14.4	85.8
22	27,524,080	-2,098,695	15.3	-7.6	84.7
23	29,622,775	1,917,945	14.3	6.5	85.7
24	27,704,829	4,670,093	11.9	16.9	88.1
25	23,034,736	2,404,273	10.7	10.4	89.3
26	20,630,463	1,256,434	10.0	6.1	90.0
27	19,374,030	697,622	9.6	3.6	90.4
28	18,676,408	-561,037	9.9	-3.0	90.1
29	19,237,444	2,170,316	8.8	11.3	91.2
30	17,067,129	681,022	8.5	4.0	91.5

Shaded areas reflect 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles.

TABLE 14  
COMPARISON OF PARTICIPATION SPELLS ENTRY COHORT  
FSPQC-BASED ESTIMATES, 1990-1999

Period	25 Percent of Individuals Exit in or Before Month	50 Percent of Individuals Exit in or Before Month (Median)	75 Percent of Individuals Exit in or Before Month
<b>Total Period</b> August 1990 – October 1999	3	6	13
<b>Caseload Growth I</b> August 1990 – July 1993	4	7	13
<b>Caseload Decline I</b> August 1993 – July 1996	3	6	13
<b>Caseload Decline II</b> August 1996 – October 1999	3	6	12

These FSPQC-based estimates are consistent with the FSPQC-based decomposition estimates presented in Chapter II. According to FSPQC data, more than half of the caseload growth and two-thirds of the caseload decline in the 1990s could be explained by changes in the exit rate. The slight decline in the 25 percentile and median spell lengths could have affected caseload trends substantially. We simulated an FSP caseload by assuming a constant number of new entrants each month (1.5 million) and by using the FSPQC-based exit rates for the caseload growth and decline periods. The resulting caseload was 9.5 percent lower after seven months using exit rates from the period of decline than when using the exit rates from the period of caseload growth (Table 15). Differences in cumulative exit rates would be even larger after seven months, all else being equal.

TABLE 15  
SIMULATED CASELOAD USING FSPQC-BASED EXIT RATES  
1990-1993 VERSUS 1996-1999

	Caseload Growth (1990-1993)	Caseload Decline (1996-1999)
<b>Monthly New Entrant Assumption</b>	1.5 Million	1.5 Million
<b>Cumulative Exit Rate</b>		
Month 1	7.6	7.6
Month 2	10.8	10.8
Month 3	16.5	<b>26.2</b>
Month 4	<b>25.7</b>	37.8
Month 5	29.1	46.2
Month 6	42.0	<b>54.3</b>
Month 7	<b>53.7</b>	60.9
<b>Caseload Size, End of Month 7</b>	9,218,995	8,341,768
Difference	--	877,226
Percent Difference	--	9.5

## 2. SIPP-Based Estimates

SIPP data are well-suited for examining participation dynamics of new entrants because the longitudinal nature of the survey allows observation of households as they enter FSP as well as how long each FSP household participates in the program.

We combined data from the five SIPP panels covering the 1990s to construct a life table for all individuals who entered the FSP during that period (Table 16). Data from spells that started before the analysis period (left-censored spells) were not included in the analysis. Data from spells that lasted as long as or longer than the SIPP panel (right-censored spells) were included in the life table, but when the SIPP panel ended, we did not consider these households as exiting the FSP. Instead, we used the information for the spell while it was active. For example, if a spell

was right-censored after 10 months, we used the information that the spell did not end within the first 10 months. To yield estimates similar in methodology to Gleason et al., we did not weight life table estimates.<sup>17</sup>

During the overall period, the median spell length was eight months, meaning that of all the individuals who entered the FSP in the 1990s, one-half had a participation spell lasting eight or fewer months. Three-fourths of program entrants had a spell length that lasted 21 or fewer months. About one out of every five individuals who entered the FSP in the 1990s had a participation spell that lasted longer than two years. While the hazard rate had a large spike at 12 months, potentially reflecting the influence of certification periods, it also had spikes at 4-month intervals. This may reflect the influence of “seam reporting” in the SIPP. SIPP interviews occur every four months, and seam reporting occurs when respondents report that they received food stamps in all four of the previous months when in fact they received food stamps for fewer than four of those months.

Economic and policy changes during the 1990s appear to have combined to reduce the participation spells of longer-term participants—those receiving benefits for a year or more. During all three of the caseload periods, 25 percent of entrants left the program by the end of their fourth month and 50 percent left by the end of their eighth month (Table 17). However, those who did not exit by their eighth month were more likely to have had longer participation spells in the early 1990s than in the late 1990s. During the caseload growth of the early 1990s, half of those individuals who did not exit before their eighth month had spells lasting longer than

---

<sup>17</sup> The appropriate weight for life table estimates would be the SIPP longitudinal panel weight. However, because the probability of selection in SIPP is not associated with FSP participation spells, little analytical value is lost by examining unweighted estimates.

TABLE 16

LIFE TABLE OF FSP PARTICIPATION SPELLS ENTRY COHORT,  
SIPP-BASED ESTIMATES, 1990-1999

Month of Spell	Number of Spells at Beginning of Month	Number Exiting During Following Month	Survivor Rate (Percentage)	Hazard Rate (Percentage)	Cumulative Exit Rate (Percentage)
1	13,603	1,103	91.9	8.1	8.1
2	12,147	946	84.7	7.8	15.3
3	10,870	683	79.4	6.3	20.6
4	9,902	1,884	64.3	19.0	35.7
5	7,224	491	59.9	6.8	40.1
6	6,561	445	55.9	6.8	44.1
7	5,938	287	53.2	4.8	46.8
8	5,516	684	46.6	12.4	53.4
9	4,376	196	44.5	4.5	55.5
10	4,056	199	42.3	4.9	57.7
11	3,745	178	40.3	4.8	59.7
12	3,486	360	36.1	10.3	63.9
13	2,859	104	34.8	3.6	65.2
14	2,678	102	33.5	3.8	66.5
15	2,502	80	32.4	3.2	67.6
16	2,366	197	29.7	8.3	70.3
17	1,951	66	28.7	3.4	71.3
18	1,821	59	27.8	3.2	72.2
19	1,694	49	27.0	2.9	73.0
20	1,612	101	25.3	6.3	74.7
21	1,329	45	24.4	3.4	75.6
22	1,231	48	23.5	3.9	76.5
23	1,123	35	22.7	3.1	77.3
24	1,052	66	21.3	6.3	78.7
25	836	23	20.7	2.8	79.3
26	766	15	20.3	2.0	79.7
27	690	20	19.7	2.9	80.3
28	634	37	18.6	5.8	81.4
29	442	9	18.2	2.0	81.8
30	393	16	17.5	4.1	82.5

Shaded areas reflect 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles.



TABLE 17  
COMPARISON OF PARTICIPATION SPELLS SIPP-BASED ENTRY COHORT  
ESTIMATES, 1990 THROUGH 1999

Period	Individuals at Risk of Exiting	25 Percent of Individuals Exit in or Before Month	50 Percent of Individuals Exit in or Before Month (Median)	75 Percent of Individuals Exit in or Before Month
<b>Total Period</b> August 1990 – October 1999	13,603	4	8	21
<b>Caseload Growth I</b> August 1990 – July 1993	5,587	4	8	26
<b>Caseload Decline I</b> August 1993 – July 1996	3,683	4	8	21
<b>Caseload Decline II</b> August 1996 – October 1999	3,792	4	8	16

26 months. In the late 1990s, on the other hand, half of those individuals participating longer than eight months left the program by the end of their 16<sup>th</sup> month.<sup>18</sup>

Our estimates of the participation spells of new entrants in the early 1990s are slightly shorter than those estimated by Gleason et al. (1998) for new entrants in 1991 and 1992. Their estimates, which were based on just the 1991 SIPP panel, showed a 25<sup>th</sup> percentile participation spell of 4 months, a median of 9 months, and a 75<sup>th</sup> percentile of over 30 months. Because our estimates for this period included 1993 but the Gleason et al. estimates did not, this suggests that

---

<sup>18</sup> Some of the decline in long-term participation spells observed over the 1990s may be explained by the increased FSP volatility observed in the 1996 SIPP panel. While volatility adjustments were made for entry and exit rates discussed in Chapter II, no such adjustments were made for the analysis of spell length. We expect that adjusting for this volatility would have a relatively small increase in the 75<sup>th</sup> percentile participation spell month in the Caseload Decline II period.

there were proportionately more long-term participants entering the FSP during 1991 and 1992 than there were for the entire 1990 to 1993 period combined.

FSPQC and SIPP provide relatively consistent estimates of the median spell length of new entrants. According to FSPQC data, the median spell length during the 1990s was seven months; according to SIPP data it was eight months. However, the two data sets differ in how the spell length distribution changed over time. In SIPP, the lower end of the distribution—reflecting the length of time that people with short participation spells stayed in the program—remained relatively constant over time, while the spell length of the long-term participants fell substantially. In FSPQC data, on the other hand, the spell lengths of all participants declined during the 1990s—even among those with the shortest participation spells. Another key difference between the data sets is the estimate of the 75<sup>th</sup> percentile spell length: 21 months in SIPP data compared with 13 months in FSPQC data for the entire analysis period.

### **3. Subgroups**

We used SIPP data to estimate entry cohort participation spell distributions for subgroups of FSP participants.<sup>19</sup> Subgroups were defined based on individuals' characteristics only for the month that they entered the FSP.<sup>20</sup> These estimates show that the elderly had the longest participation spells during the 1990s (Table 18). Of all elderly individuals entering the FSP in

---

<sup>19</sup> Subgroups cannot be estimated using FSPQC data, since individuals can move into and out of subgroups from month to month. As a result, changes in monthly subgroup estimates could be the result of entry and exit from the FSP or simply changes in subgroup status.

<sup>20</sup> This differs slightly from the approach for defining subgroups in the entry and exit rate analysis presented in the previous chapter. In that analysis, individuals who changed subgroup status after entering the FSP were not counted as an exit for that subgroup. In the analysis of participation spells, we were interested in how long individuals participated, given their characteristics at entry. Thus, individuals who changed subgroup status after entering the FSP were included in the spell length analysis.

TABLE 18

COMPARISON OF SPELL LENGTH DISTRIBUTIONS BASED ON SIPP ESTIMATES  
FOR ENTRY COHORT SUBGROUPS 1990-1999

Subgroup	Number at Risk of Exiting in Month 1 (n)	25 Percent of Individuals Exit In or Before Month	50 Percent of Individuals Exit In or Before Month (Median)	75 Percent of Individuals Exit In or Before Month
All Individuals	13,603	4	8	21
Single Mothers	4,417	4	11	27
Working Poor	4,738	4	6	14
Noncitizens	928	4	9	24
ABAWDs	1,151	2	4	9
Elderly	1,454	5	15	n.a.

n.a.= not applicable. The 75<sup>th</sup> percentile cannot be computed because more than 25 percent of cases did not exit before the end of the SIPP panel.

the 1990s, 50 percent had spells lasting 15 months or longer. Single mothers also had long participation spells, with 50 percent participating for 11 months or longer and 25 percent for 27 months or longer.

The working poor had participation spells that were shorter than those measured for the food stamp population as a whole: 50 percent of individuals who entered the FSP with earnings exited in or before their 6<sup>th</sup> month, and 75 percent exited by their 14<sup>th</sup> month. ABAWDs, who were faced with time limits on food stamp receipt after PRWORA, had the shortest participation spells: 25 percent exited in or before their second month of participation, and 50 percent exited in or before their fourth month.

Participation spells for almost all subgroups shortened over the 1990s (Table 19). In particular, spells decreased the most among those long-term participants in each subgroup. The 75<sup>th</sup> percentile participation spell for single mothers decreased from 27 months in the mid-1990s

TABLE 19

COMPARISON OF SPELL LENGTH DISTRIBUTIONS: SIPP-BASED  
ESTIMATES FOR ENTRY COHORT SUBGROUPS, BY PERIOD

Subgroup	Number at Risk of Exiting in Month 1 (n)	25 Percent of Individuals Exit in or Before Month	50 Percent of Individuals Exit in or Before Month (Median)	75 Percent of Individuals Exit in or Before Month
<b>Caseload Growth I</b>				
August 1990 – July 1993				
All individuals	5,587	4	8	26
Single mothers	1,836	5	13	n.a.
Working poor	1,732	3	6	15
Elderly	574	6	20	n.a.
Noncitizens	362	4	12	28
ABAWDs	453	2	4	9
<b>Caseload Decline I</b>				
August 1993 – July 1996				
All individuals	3,683	4	8	21
Single mothers	1,219	4	10	27
Working poor	1,217	3	7	14
Elderly	395	4	15	38
Noncitizens	256	4	8	24
ABAWDs	288	2	4	10
<b>Caseload Decline II</b>				
August 1996 – October 1999				
All individuals	3,792	4	8	16
Single mothers	1,178	4	8	17
Working poor	1,620	4	6	12
Elderly	414	4	12	36
Noncitizens	266	4	8	14
ABAWDs	372	3	4	9

n.a = not applicable. The 75<sup>th</sup> percentile cannot be computed because more than 25 percent of cases did not exit before the end of the SIPP panel.

to 17 months in the late 1990s. Over the same period, the 75<sup>th</sup> percentile for the working poor decreased from 14 months to 12 months, and the 75<sup>th</sup> percentile for noncitizens decreased from 24 months to 14 months.

Interestingly, despite time limits on FSP participation, the participation spells for ABAWDs, which already were short in the early and mid-1990s, did not decrease substantially after the time limits were imposed. Indeed, the 25<sup>th</sup> percentile participation spell length increased from two months to three months, possibly affected by the fact that the imposed time limit was three months.

## **B. CROSS-SECTIONAL COHORT**

The cross-sectional cohort includes all food stamp participants in a given month. We estimated their full participation spell length, including the months of participation prior and subsequent to the analysis month. We estimated life tables for a cross-sectional cohort that included all participants in March 1996, a period after the caseload peak but prior to the sharp caseload decline of the late 1990s. Ideally, we would have examined multiple cross-sectional cohorts, but the data limited our ability to do so. Our estimate needed to be early in the 1996 SIPP so that we would have data to follow participation spells after the month in which the cross-sectional cohort was selected. We constructed both FSPQC- and SIPP-based estimates for March 1996.

### **1. FSPQC-Based Estimates**

To estimate cross-sectional cohort life tables in FSPQC data, we used a method similar to that for computing life tables for the entry cohort. We first examined the start dates of the sample of individuals pulled for March 1996. Then, using FSPQC samples for subsequent months, we examined the changes in the number of people sampled who had the same start date.

For example, we examined the number of people participating in March 1996 who had started in January 1996. These individuals were in their third month of participation in March 1996. We could then see how many of these individuals exited after their third month by examining the sample of people in their fourth month in April 1996 (that is, the sample with a January 1996 start date). The life table was computed by summing these changes over all possible start months. We used more than 60 months of FSPQC samples subsequent to March 1996 to compute the life table for the cross-sectional cohort.

As expected, estimated participation spells were longer for the cross-sectional cohort than for the entry cohort. According to FSPQC data, 25 percent of the individuals participating in March 1996 were in the middle of a participation spell lasting one year or less, and 55 percent were in a spell lasting three years or less (Table 20). The median participation spell was 26 months compared with 54 months estimated in SIPP (Figure 8). Earlier SIPP-based estimates by Gleason et al. (1998) estimated that the median cross-sectional spell length was more than eight years; according to FSPQC data, only 14 percent of the March 1996 caseload was in the middle of a participation spell lasting eight years or longer.

## **2. SIPP-Based Estimates**

To construct SIPP-based estimates of the cross-sectional cohort life table, we included those “left-censored” spells that were excluded from the entry cohort. Using reciprocity history questions asked at the start of the SIPP panel, we determined the first month that each left-censored FSP unit began participating. We then followed all FSP units throughout the life of the

TABLE 20

SURVIVOR AND EXIT RATES FOR FSPQC-BASED  
MARCH 1996 CROSS-SECTIONAL COHORT

Spell Length (Years)	Individuals at Risk of Exiting	Survivor Rate (Percent)	Cumulative Exit Rate (Percent)
0.5	25,848,647	84.8	15.2
1.0	21,958,401	73.9	26.1
1.5	19,178,218	58.5	41.5
2.0	15,210,431	52.7	47.3
3.0	13,738,893	44.2	55.8
4.0	11,551,769	33.8	66.2
5.0	8,848,435	31.4	68.6
6.0	8,238,278	24.5	75.5
7.0	6,463,023	18.8	81.2
8.0	4,972,691	14.2	85.8
9.0	3,786,810	11.6	88.4
10.0	3,101,462	9.7	90.3

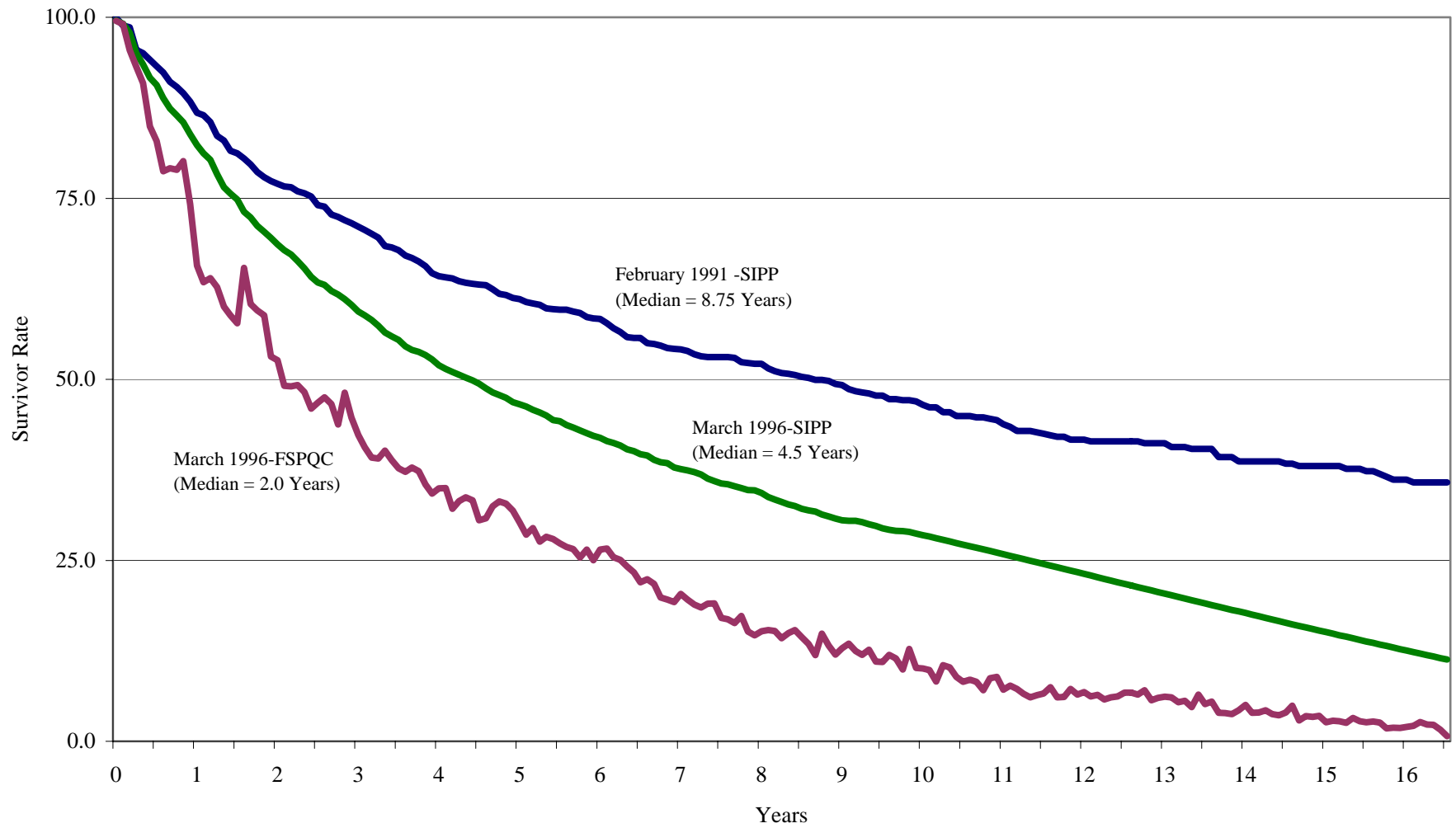
TABLE 21

SURVIVOR AND EXIT RATES FOR SIPP-BASED  
MARCH 1996 CROSS-SECTIONAL COHORT

<b>Spell Length (Years)</b>	Individuals at Risk of Exiting	Survivor Rate (Percent)	Cumulative Exit Rate (Percent)
0.5	4,768	91.7	8.3
1.0	4,358	83.8	16.2
1.5	3,967	75.6	24.4
2.0	3,573	69.5	30.5
3.0	3,279	60.3	39.7
4.0	2,830	52.8	47.2
5.0	2,382	46.9	53.1
6.0	1,892	42.2	57.8
7.0	1,584	37.8	62.2
8.0	1,333	34.7	65.3
9.0	1,116	30.8	69.2
10.0	928	28.7	71.3

FIGURE 8

SURVIVOR RATES FOR CROSS-SECTIONAL COHORTS  
FEBRUARY 1991 AND MARCH 1996





panel until they exited the FSP. As with the entry cohort, all SIPP-based estimates were unweighted, which is similar to the methodology used by Gleason et al. (1998).<sup>21</sup>

Participation spells for the March 1996 cross-sectional cohort were substantially shorter than those estimated by Gleason et al. for February 1991. To ensure that our current approach was consistent with their earlier approach, we replicated the February 1991 estimates using the same methods used to produce the March 1996 cross-sectional estimates (Table 22). As with the Gleason et al. estimates, the median participation spell for the February 1991 cohort was more than eight years, about twice the median for March 1996. When we compare the quartiles of the distribution, as well as the plot of the distribution (Table 23 and Figure 5), it is clear that participation spells were shorter at all points of the distribution in 1996 than in 1991.

The shorter participation spell estimates for the cross-sectional cohort are relatively consistent with trends observed for the entry cohort, where participation spells decreased significantly for long-term recipients. If new entrants were more likely to have short participation spells, then it follows that the distribution of spells in any given month would reflect proportionately fewer of the longest term recipients. However, because the new entrant cohort distribution of participation spells for short-term participants remained virtually unchanged during the 1990s, we would expect the 1996 and 1991 cross-sectional distributions to be more similar among short-term participants.

Differences between the 1991 and 1996 SIPP panels could help to explain the differences in cross-sectional estimates. These differences, which are discussed more in Appendix A, could have led to systematic differences between the samples of FSP participants in February 1991 and

---

<sup>21</sup> As with Gleason et al., we needed to impute FSP start dates for children because SIPP does not ask reciprocity history questions of individuals under 15. In general, we set the start date as equal to the date that the child's parent entered the FSP unit, or the date that the child entered the household, if later.

TABLE 22

SURVIVOR AND EXIT RATES FOR SIPP-BASED FEBRUARY 1991  
CROSS-SECTIONAL COHORT

<b>Spell Length (Years)</b>	<b>Individuals at Risk of Exiting</b>	<b>Survivor Rate (Percent)</b>	<b>Cumulative Exit Rate (Percent)</b>
0.5	2,134	94.1	5.9
1.0	2,006	88.4	11.6
1.5	1,879	81.5	18.5
2.0	1,734	77.4	22.6
3.0	1,646	71.6	28.4
4.0	1,198	64.7	35.3
5.0	898	61.2	38.8
6.0	743	58.4	41.6
7.0	610	54.2	45.8
8.0	489	52.1	47.9
9.0	421	49.4	50.6
10.0	345	46.9	53.1

TABLE 23

COMPARISON OF SPELL LENGTH DISTRIBUTIONS  
FEBRUARY 1991 VS. MARCH 1996 SIPP-BASED ESTIMATES

<b>Period</b>	<b>25 Percent of Individuals Exit in or Before Month</b>	<b>50 Percent of Individuals Exit in or Before Month (Median)</b>	<b>75 Percent of Individuals Exit in or Before Month</b>
February 1991	31 (2.6 years)	105 (8.75 years)	201 (16.8 years)
March 1996	19 (1.6 years)	54 (4.5 years)	137 (11.4 years)

March 1996. For instance, in the 1991 panel, the questions concerning pre-panel reciprocity history were asked in Wave 2. Four months after the respondent's first SIPP interview, they were asked when they started the FSP spell that was active during or before that first interview. These questions were asked in Wave 1 of the 1996 panel. Because 1991 SIPP sample members were asked to recall information over a longer period of time, this could have led to reporting errors regarding spell lengths. In particular, it could have caused respondents with relatively short participation spells to report the spells as being one or two months longer than they actually were.<sup>22</sup>

Another apparent difference between the two panels is that the 1996 panel appeared to have included a more volatile sample of FSP participants. Our estimates of replacement and exit rates discussed in Chapter II were adjusted to account for this volatility; this is explored in more detail in Appendix A. The volatile sample could have led to more individuals reporting short participation spells in 1996.

---

<sup>22</sup> It should be noted, however, that Gleason et al. (1998) identified some evidence that pre-panel reciprocity history questions in the 1991 panel led respondents to under-estimate their participation spells, relative to other FSP participants.